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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|--------------------------|---------------------|------------------|
| 09/551,962 | 04/19/2000 | Henry Esmond Butterworth | GB9-1999-0117US1 | 3838 |

7590 06/05/2003

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EXAMINER

CHANG, JUNGWON

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2154 | 4 |

2154

4

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | |
|-------------------------------|------------------------------------|--|
| Application No. 09/551,962 | Applicant(s) BUTTERWORTH ET AL. | |
| Examiner Jungwon Chang | Art Unit 2154 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 March 2002.
- 2a) This action is FINAL.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 - * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) Interview Summary (PTO-413) Paper No(s). _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other:

DETAILED ACTION

1. Claims 1-4 are presented for examination.

2. The specification is objected to because the following informality:
instructed t construct should be changed to instructed to construct (page 8, line 18).
Correction is required.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "20" and "30" have both been used to designate bus subsystem (please see page 9, lines 25-27). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Platko et al. (US 6,330,658 B1), hereinafter referred to as Platko.

6. As to claims 1 and 4, Platko discloses the invention substantially as claimed, including a data processing system (col. 1, lines 22-24) comprising:

a master processor (16, fig. 1; col. 2, lines 18-19);

a slave processor (18, fig. 1; col. 2, line 25);

a memory (20, fig. 1; col. 2, lines 19-20); and

a bus subsystem interconnecting the master processor, the slave processor, and the memory (fig. 1; col. 2, lines 18-30; col. 3, lines 20-25);

wherein the master processor is configured to generate, in response to a memory access instruction (i.e., read, write; col. 4, line 64 – col. 5, line 13), a read request (col. 2, lines 45-49; col. 5, lines 35-47) comprising a read command for execution by the slave processor to read data stored in a location in the memory specified by the memory access instruction (col. 2, lines 32-35), and to write the read request to the slave processor via the bus subsystem (col. 2, lines 35-37), and the slave processor is configured to execute the read command received in the read request from the master processor to obtain the data stored at the specified location in the memory (col. 6, lines 3-24).

7. Platko does not specifically disclose writing the data obtained to the master processor via the bus subsystem. However, Platko discloses data transferring between

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master processor and slave processor via bus subsystem (col. 5, lines 35-44), and data transferring between slave processor and memory via bus subsystem (col. 6, lines 3-24). Therefore, the slave processor can transfer the data obtained from the memory to the master processor via the bus subsystem. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include writing the data obtained to the master processor because doing so would improve efficient transfer of data by allowing the master processor to directly acquire data stored in the memory from the slave processor without passing through the memory.

8. As to claim 2, Platko discloses wherein the bus system comprises two buses interconnected by a bridge device (col. 2, lines 26-27).

9. As to claim 3, Platko discloses the invention substantially as claimed in claims 1 and 4. In addition, Platko discloses a disk controller (46, fig. 1; col. 5, lines 49-52).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Evoy, patent 6,330,658 B1, Gilbert, patent 5,752,068, Yamashita et al, patent 6,377,979 B1, Maya et al, patent 6,144,995 disclose master/slave multi-processor utilizes a master

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processor which controls the operational state of a slave processor by programming on the slave processor.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jungwon Chang whose telephone number is (703)305-9669. The examiner can normally be reached on 8:30-6:00 (Monday-Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703)308-9052. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7239 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-9669.

Jungwon Chang
May 30, 2003


MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
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